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CONDITION OF HACKS, CLIPPING, &c.

Whatever purpose the horse may be required for, unless he is is condition he is of very little value: however well he may be bred, however quick he may be in his paces, safe in his action, well broken and pleasant to ride, he will lose his speed, his safety, and, with these failings, that willing disposition generally denominated being "pleasant to ride," if he is wanting in the *sine qua non*—condition. Many casual observers may fancy that if the animal is tired he is equally unpleasant to ride whether he be in condition or not; but this is not the case: a well-bred hack—and nobody dreams of riding one which is not so in these days of galloping and steam—if in condition, will go to the last with a degree of alacrity and pleasure to himself and to his rider which he cannot do if over-fat, or if he is weak and emaciated.

In my application of the word *condition*, I do not mean to express by it that the animal is to be overloaded with flesh—an indispensable qualification with many persons, especially in the great metropolis, where you cannot dispose of your quadruped if desirous to do so, unless he be as fat as a Smithfield ox. It may be set down as an unexceptionable fact, that he cannot work in that state, he may look more handsome to parade in the park or the streets of town; and, if that be the only purpose for which he is required by all means the fatter he is the better. But this is not the service for which the animal which I am about to notice is wanted: his occupations will be very different; he is employed in carrying his master to covert in the winter, and, on intermediate days, in performing such journeys as pleasure or business may require.—Whilst the race-horse during the winter season is allowed many indulgencies which cannot be conceded to him in the summer; and the summer's rest affords the hunter a relaxation from actual work, which his great exertions during the winter season claim as a prorogative for him; the services of the hack are in constant requisition—he may be said never to be at rest. It follows that his condition ought to be attended to, in order that he may be enabled to perform his task; and there is no earthly reason why he should not be attended to with systematic care. Many men complain that they cannot procure good hacks, and that they cannot get them to stand their work for any length of time: this arises from want of condition and proper attention.

Preferring the independence of riding on horseback to the restrictions of a stage-coach, I have always had in my possession a hack to carry me from one part of the country to another; and even when journeys of one hundred and fifty or two hundred miles have been before me, I have usually performed them on horseback. Now that railroads have in so many parts superseded the coaches, and as they appear to be increasing in their innovations, it will be more than ever important to possess a good hack. To me the locomotive steam engine is the greatest abomination: on the railway you are conveyed from one place to another like a prisoner; you are scarcely allowed to think for yourself: the Directors, in their bounuful kindness, having preceded you by their "better judgment," and have formed a code of laws for your observance and their interest to be in force from the moment of your entering their establishment to that of your leaving it. Their restrictions can surely never be by choice submitted to by an Englishman possessing his health, the use of his limbs, and a good hack.

Without offering a dry and uninteresting detail of the requisite course to be adopted to get a hack into condition—a subject which has already been very ably dilated upon by former correspondents in this work, and which every man having an ordinary knowledge of horses ought to be conversant with—I shall not pass over a few remarks which, with most persons, are neglected in the treatment of their hacks.

It very frequently happens that a person, when he has purchased a hack, finds that he is wofully out of condition; but not being willing to afford time for that great desideratum to be accomplished, he puts him to work thoughtlessly observing he is *but* a hack, and whenever his services are required they must be brought forth. By this treatment the poor brute never becomes fit: he is overdone, and will not feed he is in that state called upon to perform what his powers are unequal to. and he is condemned as worthless, dejected, weak, and ill: he is again disposed of, or continues to be used with cruelty, because he is considered of no value: and this I am sorry to to remark is too frequently the case.

When a hack is once got in condition, a moderate share of attention will keep him so. It will, however, be as well to make myself clearly understood how I mean the term to be applied. He should be free from superfluous fat, very full of muscle, and his body neither distended to excess, nor drawn as fine, as if he were going to race. All animals to undergo laborious exertion must be rather light than otherwise: plethora is incompatible with activity. I would rather have my hack looking what may be termed too light than too lusty, providing he is full of good keep and in strong work. If a horse in strong work he will seldom be too fat. Mr. R. Tattersall, Jun. made a remark to me some time since, which, although it was merely a casual observation, I consider was rather complimentary as regarded the general condition of my horses. I was riding a little thorough-bred mare, which I had been using as my hack for some time, when he observed, "Why, your horses always look as if they were in training." Accustomed as he is to seeing so many horses made up for sale, and the generality of London horses so overfull of flesh, a hack in the trim that I always desire to have mine would doubtless appear to him almost in racing condition.

Although I am aware that I shall have to encounter a host of objectors, especially amongst those of the Old School, I am decidedly in favor of keeping hacks *warm*. It is obvious to every one in the least degree acquainted with the habits and constitution of the horse, that he looks best and is in the most healthy state in warm weather, consequently he can then perform the most labor: not, let me explain myself, that I would select one of the hottest days in summer as the day of all others to perform a long journey; but I would, if possible, have a moderately warm day, preceded by days of equal temperature, if our changeable climate would permit me, upon the principle that the animal's health would in all probability be at its best.

The nearer we follow Nature in the treatment of animals the better; and I contend that keeping horses in cold and exposed situations is a a violation of the laws of Nature. The blood-horse originally came from Eastern climates, where the temperature is dry and warm; and although he is to a certain extent naturalized to this climate, there can be no doubt the nearer the temperature may be to that of his primitive soil the better will his health be.

The vine, it is true, will grow and produce grapes in the open air in this country, but not in that abundance, size, quality, or flavor as it does in warmer climates, or when protected by the shelter of a hot house. Those who object to having their hacks kept warm argue that at times they are inevitably exposed to a cold stable, and that such a change will be productive of catarrh, inflammation, and various other diseases. This is an evil no so frequently to be encountered as formerly: stables are more comfortably constructed than they used to be; and if a dinner invitation or other social visit exposes the hack to a temporary asylum in a cold stable, a rug or two, or even a blanket, can surely be found to keep him warm whilst his master enjoys himself at the festive board. Indeed, if no *envelopment* can be procured, I am convinced the animal will not be so susceptible of cold, although accustomed to warmth at home, as he will be if kept too cool, and for this reason—he will be finer in his coat, and from the beneficial result of condition, he will be dry; whereas a horse with a long coat, and out of condition, has a garment like a wet blanket, with a languid circulation, insufficient to create that evaporation necessary to render the horse dry, and the perspiration will be seen hanging to the point of almost every hair on his body.*

For this reason the operation of Clipping, unless a horse possesses a short and fine coat during the winter season, never ought to be neglected, for there is no description of horses to whom it is generally speaking, more essential than for hacks. I can speak of its advantages from experience, and will relate one or two circumstances which came under my own observation.

Several years since a pony mare, which I rode as hack, was in the winter invariably afflicted with a cough: she had an exceedingly long coat, which did not dry after work for several hours: the fashion of clipping being introduced, I had that operation performed, and I was no longer teazed by the cough: she would dry in a very short time, and most unquestionably stood her work better than before. She was used for thirteen successive years, and is now living, at the age of twenty-two, although not in my possession; but this is pretty good evidence that her constitution was not injured.†

The most convincing proof of horses not being so subject to take cold as many persons imagine, is evidenced by an event which happened to me last winter. I had had my hack clipped, and only three days afterwards, returning home across a large park about six o'clock of one of the darkest evenings I ever encountered, I got out of the road amongst some trees, the branches of which pulled me off, and my horse got away from me. It was a very cold frosty night in December, and, being unable to catch the mare, she remained out all night. Although accustomed to a warm stable, she took no cold whatever—a trifling inflammation of the trachea, arising from the inspiration of the cold and foggy atmosphere, being the only ill effects she received, and which was removed in a few days by the application of a stimulating liniment to the part affected. It was unquestionably owing to her having been clipped that she escaped so easily; her coat was dry, which it would not have been but for that operation. A horse encompassed by a volume of perspiration with which a long coat is saturated is like a man with wet clothes on, and the situation of both is dangerous.

It is no merely the fact of a clipped horse being so much sooner dressed on his return home, and the saving of labor to the strapper, as well as the increased period which he thereby obtains for rest, but he can do his work so much more easily to himself, because he does not sweat so profusely.—No one would think of riding a hack in a full suit of clothing: a long coat has much the same effect, with this disadvantage, that you cannot slip it off when his day's work is over, and the sweat must be suffered to dry upon him.

The practice of singing has its advocates, but it is not so effectual as clipping; it does not eradicate a thick woolly coat. which, is the worst of any, as it retains the moisture so long: the operation, too, is troublesome, and requires frequent repetition; whereas a horse clipped in November needs no more trouble.

Various opinions exist as to the best division of the stages which a horse should be ridden or driven when performing a long journey. This must in some degree be regulated by his condition. If he is fit to go, with a journey of a hundred and fifty miles to perform, and three days to do it in, I should divide them into twenty-five miles each, or as near as the accommodation on the road would permit, starting, especially in the summer time, early in the morning, and performing the first twenty-five miles before breakfast. This enables you to have your horse well dressed, and to afford him three or four hours rest; and if he will eat two quarterns of oats, and a quartern of beans (which should be divided into two feeds). he will not take much harm. A moderate quantity of water must be given; at the same time it must be observed, that too much will cause most horses to scour, and likewise to sweat more profusely; therefore the less he has in reason the better till his day's work is completed. when he should have as much as he is inclined to take. Gruel is an excellent thing, but it is not readily procured, properly made, on the road: it should invariably be boiled, and I prefer it made, with wheat flour, as it remains longer on the stomach, and is less relaxing than when made with oatmeal.—The usual method of preparing what they call gruel at inns is to mix oatmeal with warm water, in which state it is decidedly bad: its emollient quality is produced by boiling, and if I cannot procure it in that state I prefer water.

A lock of dry hay should be presented to the horse when he enters the stable. I recommend it dry for this reason. If it is made wet, a custom with some persons the horse gives it two or three twists with his teeth, and, finding it sufficiently moist to be swallowed, he bolts it, and it passes into the stomach like a little wisp; but if dry, he is compelled to masticate it, the action of which produces a discharge of saliva which cleanses the mouth much more effectually. For the same reason, the corn should never be made wet: a few go-downs of water given at intervals if the horse appears to refuse his corn from thirst, is a much better practice. The great secret in making a hack perform long journies is not to ride or drive him too fast especially at first starting, as it causes him to sweat profusely, which renders him faint; and when he arrives at the stable he refuses his corn. A race-horse is seldom called upon to take a four or five mile gallop oftener than six or seven days, and a hack is frequently required to perform that distance at a good smart pace every day. There is certainly this difference that the race-horse is usually worked with clothes on, which the hack is not; but hacks are very frequently compelled to go a distance of five or six miles at a pace which to them is nearly as severe as the pace at which many trainers sweat their horses is to the race-horse.

Some attention should also be paid to the quantity of hay given to the horse previously to his being worked: this should be regulated by the distance and pace which he will be required to go. All these little things may appear unimportant, but they are essential to the animal's condition, and in fact to the comfort and interest of the rider. If a short and fast journey, such as going to covert, he should be kept rather short of hay over-night; but if a long journey fit to be taken at a slow pace during the firsisve or six miles, a more liberal allowance will be beneficial.

Washing the legs and feet should never be neglected; and the gravel or sand should be carefully extracted from between the sole of the foot and the shoe whenever the horse stops to be fed. The pressure which it occasions, if suffered to accumulate, is exceedingly painful. Unless a hack has been ridden very fast, I prefer cold water to wash his legs and feet, as the bracing effect is very salutary. I know that some persons object to it on the supposition that it produces rheumatism; but when a horse comes in from a journey in the winter his legs are generally as wet as they well can be, independently of which they are covered with mud and dirt; and after washing them, if circumstances will not allow of their being perfectly dried by the rubber, they will at all events become dry sooner than if an accumulation of dirt be suffered to remain on the limb. As a matter of course I would prefer their being rubbed dry, but at inns you cannot always get it done. The use of the sponge to the nostrils, and such parts as are usually cleansed by that apparatus, adds much to the comfort of the animal and should always be attended to when he comes into the stable.

The practice of stopping the feet with clay and cow-dung is now pretty much out of fashion. To most feet I am convinced that it is highly injurious; it rots the frog, and renders the sole too soft; the consequence of which is, if a horse happen to put his foot upon a stone, down he comes.—Damp tow is unquestionably the best material, and a pad made with it will last a long time with care. This kind of stopping, however, should not be used too often, and, generally speaking, is more necessary after a journey than before it. As to its cooling effects upon the foot, it has very little influence: if such a remedy is required, it must be applied in a greater bulk than the capacity of the foot will contain, and must be applied externally if heat in the foot indicates internal inflammation: for this purpose wet pads made of strong linen tied round the hoof appear to be the best applications.—Tar and grease, or tar and treacle, are excellent compositions, and such as most hacks require to keep their feet in good order. To such horses as have bad frogs, a melted application, and two or three times a week with a pad of tow sufficiently thick at the heel to produce pressure, is generally found serviceable, and will in time cure thrushes.

With the most decided objection to green food alone for any thing in the shape of horse flesh (brood mares and foals excepted.) I invariably give a moderate portion in the summer mixed with hay, and I find the best effects from doing so: it has a cooling operation, and the hay prevents it passing through the bowels too rapidly. It is necessary to have the hay and the green food very well mixed, or the horse will select the latter and leave the hay It is scarcely necessary to add, that I never think of turning a horse out to grass under any circumstances.

London Old Sporing Magazine.

*This PHOLOSOPHY, like very much of what is constantly met with even among intelligent men, has no foundation in nature. It is not the horses circulation that causes the evaporation of his sweat. The horse in bad condition becomes wet with sweat sooner than the one in good condition, not because the evaporation from the latter is greater; but because the former, owing to debility, sweats more when actively exercised. ED. GAZ.

†It may be true that horses often rode or worked so hard in winter as to become wet with sweat, would be more comfortable when clipped. That is they would suffer less from being deprived of the coat of hair which nature provides as a protection against the cold, than from wearing this coat wet. But they still suffer from being clipped. Nature provides no animal with a thicker coat of hair in winter than is necessary to its comfort and best health. ED. GAZ.

COWS FED ALONE ON CORN WILL NOT THRIVE.

MR. CLAYTON:—I have a theory to communicate which deserves more attention than it has received, and which if it does not claim the universal attention of farmers may at least serve to swell the volume of your numerous well-meant speculations. It is harmless, and therefore beats *one* virtue upon its front.

Cows, in my neighborhood, are fed on corn—entirely on corn—throughout most of the winter. This I view as a prodigal and destructive policy—prodigal of the corn, and if not destructive, at least unnutrive to the cow. I have known cows fed on ten ears of corn, night and morning, throughout the winter, and remain poor in the spring. I do not recollect that I ever knew a cow kept fat through the winter on corn alone. A highly respectable and close observing farmer of Williamson, once told me that he has known cows to waste away, and in some instances actually to die in the spring, after having wintered on a liberal corn feeding. He averred, too, that they did not waste of the reason of another man's cow I once heard of which died of eating turnips—*one turnip a day.*—There remains with me not a reasonable doubt, that cows do not thrive well on corn alone—and I will now proceed to tell you why I think so.

The cow is a *herbivorous* animal, and in a state of nature feed on grasses, herbs, reeds, brush, &c. Nature has wonderfully provided this specie of animals with a digestive apparatus, which plainly points to the description of food it was intended they should consume. As with all other animals which feed chiefly on grass, their *molares* or jaw teeth attain great size and strength, whilst in the cow particularly the under *incisores* or fore teeth are entirely wanting; thus fitting them for the patient mastication of tough, dry herbaceous aliments. Again, the salivary glands of the cow are remarkably large; thus endowing them with the unusual secretion of saliva requisite to the complete mastication of such substances. Again the cow is provided with that other peculiar and novel portion of the digestive apparatus, denied to man and to all merely graniverous animals, the *four stomaches*—enabling her to *ruminate*, or to chew over again such portions of the woody fibre of her food as reach the portal of the alimentary canal, insufficiently masticated. Is it possible that all these peculiarities are given to the cow, without a design? Are they of no especial use? It is certain they are not absolutely required in the mastication and digestion of *corn*.

In order to make the opinions I am about to offer more intelligible, I will here premise a brief description of the above mentioned *four stomachs*, and of the other more important parts of the digestive apparatus, immediately connected with the subject of my remarks.

The first of these stomachs is the *paunch*, which is the largest, holding many gallons. The second is a globular appendage to the first, the internal membrane of which is regularly distributed into polyonal os many angled cells. The third is the smallest, and its capacity much diminished by numerous and broad duplicatures of the internal membrane. The fourth is second in size, and is lined with a villous or porous membrane. With the aid of this apparatus, and a sort of diluted muriatic acid juice with which it is regularly supplied through its internal membrane, the food of the cow is reduced to a sort of semi-fluid pulp, called *chyle*. This chyle then passes through the *duodenum jejunum*, and *illium*, [the three portions of the small intestines,) and the coecum and colon, of the large intestine, whence the excrementious matter is ejected. The internal membrane of the small gut is villous, or full of small pores, through which the nutritive juices of the food are taken up into the lacteals, and conveyed to every part of the system. In the liver, the bile is secreted, which flows into the gall bag, and thence into the duodenum, where together with the pancreatic juices, it comes in contact with the chyle. upon which it is supposed to perform very important chemical changes; among which is the separation of the alimentious from the excrementious portions of the food.

With these remarks, I will now proceed to give some of the reasons which I believe render *corn alone*, not only innutritious but really injurious to the healthful condition of the cow.

First then, a gallon of corn, or thirteen ears at a feeding, is known to contain a quantity of rich farinacious matter sufficient for one cow. This feeding of corn fills perhaps, only about *one seventh part* of one stomach, the paunch. It is an established fact with animal physiologists, that all animals feel more comfortable, when the stomach is nearly filled. And comfort, it is known contributes to *fat*. But in addition to this fact, the healthy action of the vascular membrane of the stomach, through which the gastric juice is supplied, and which is so essential to complete digestion, is dependent upon a certain *distension* of the stomach, and consequent excitement therefrom. Bell, in his anatomy of the lymphatics and lacteals of the intestinal canal, says that "the absorption is not by an inorganized pore, but depending on excitement and action"—"when excited by the presence of chyle," &c. The filling the paunch, then, with hay, fodder or other "roughness," is essential to the comfort of the animal, and the proper action of the gastric juices upon the food.

Again corn frequently passes through cows *whole*, and so completely undisturbed as to germinate and sprout on being planted. But "roughness" of all sorts, when fed to a cow, is always well decomposed and digested. The ruminating faculty of the cow enables her to throw up and chew over wads of grass, or, if fed together with corn, wads of grass and corn—thus enabling her to digest it properly. But corn alone, cannot be sufficiently acted on by this process. I need not dwell on the great importance of a proper mastication and digestion of food to the healthful condition of the animal.

But there are still more weighty reasons why corn is hurtful to animals, when fed alone. A large portion of the composition of corn grain is in farinaceous matter, consisting of gluten, albumen, &c., and becomes under certain circumstances, vegetable mucilage. It is nutritive in a high degree. But thee is in it a total absence of that *bitter principle*, which is so essential as a tonic to give strength and vigor to the systems of animals fed on nutritive vegetable substances. Dr. Paris, in his History of Medical Substances, has furnished a succinct accoount of this *bitter principle*, or *extract*, and its importance to the digestion of herbivorous animals, which I cannot do better than to quote.—He says:—

"There would seem to be certain substances that act as specific stimuli upon the living fibre, and are in certain cases indispensable for the maintenance of its healthy tone; such are *vegetable bitters*, which produce a powerful effect upon the *digestive organs* and by nervous sympathy, upon the rest of the system. Bitter *extractive* seems to be as essential to the digestion of *herbivorous*, as salt is to carnivorous animals; it acts as a natural stimulant, &c.

Again he says:

"No cattle will thrive upon grasses which do not contain a portion of this vegetable principle; this fact has been most satisfactorily proved by the late researches of Mr. Sinclair, Gardener to the Duke of Bedford, which are recorded in the magnificent work, the 'Hortus Gramineus Woburnesis.' They show, that if sheep are fed on *yellow turnips*, which contain little or no bitter principle, that they instinctly seek for, and greedily devour any provender which may contain it, and that if they cannot obtain it they become diseased and die." "With regard to the natural use of bitter extractive, it may be laid down as a truth, that it stimulates the stomach, corrects putrefying and unwholesome nutriment, promotes tardy digestion, it increases the nutritive powers of those vegetable substances to which it is united, and furnishes a natural remedy for the deranged functions of the stomach in particular." &c. "Its importance is in *an inverse ratio* with the nutritive powers of the food." "That cultivation which extends the nutritive powers of vegetable bodies generally diminishes their bitterness in the same proportion. Gummy matter is undoubtedly rendered more digestible and nutritive by the presence of a bitter."

The reader need but bear the above positions in mind and apply them to *corn* as food, which is destitute of bitter, but is eminently nutritious, and possesses much saccharine, mucilaginous, and gultinous matter.*

Besides, Professor Fritze, in his Medical Annals, states that vegetable mucilage, (existing abundantly in corn grain,) "when used as a principal article of diet, relaxes the organs of digestion, and produces a *viscid slimy mucus*, and a *morbid acid*, in the primæ viæ, an effect which analogy shows may be obviated by the addition o